

REMARKS

Claims 1, 3, 4, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi (U.S. Patent No. 5,593,938) ("Takeuchi '938").

Claims 2 to 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi '938, as applied to claim 1, and further in view of Shimbo et al. (EP 1 208 995).

Claims 6, 9 to 11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi '938, as applied to claim 1, and further in view of U.S. Patent No. 5,514,636 to Takeuchi ("Takeuchi '636").

Claims 5, 7, 8, 12 to 15 and 17 are objected to as being dependent upon a rejected base claim, but are indicated to be allowable if rewritten in independent form.

Claim 1 has been amended include the limitations of allowable claim 5 and intervening claim 4, and to include limitations based on original claims 2, 3, 6 and 9.

Claim 1 has also been amended to include the following limitations:

- 1) the binder of the heat-sensitive recording layer is a urethane-based resin and a styrene-butadiene-based resin;

2) the average thickness of the backside layer is less than or equal to the mean volume particle diameter of the spherical resin particles contained in the backside layer ("or equal to" based on Examples 6 and 13 of the present application; see Table 1 of the specification); and

3) the ionomeric urethane-based resin present in the backside layer is present in an amount of 3 to 30 mass% of all the binders.

Limitation 1 finds support in the specification on page 17, lines 25 to 26.

The limitation (2) that the average thickness of the backside layer is less than or equal to the mean volume particle diameter of the spherical resin particles contained in the backside layer is supported in original claim 2 (i.e., the average thickness of the backside layer is less than the mean volume particle diameter of the spherical resin particles contained in the backside layer) and in Examples 6 and 13 (i.e., the average thickness of the backside layer is equal to the mean volume particle diameter of the spherical resin particles contained in the backside layer). As shown in Table 1 of the specification of the present application, the average thickness of the backside layers of Examples 6 and 13 is equal to the mean volume particle diameter of the spherical

resin particles, and the heat-sensitive recording materials exhibited excellent effects of the present application in all evaluations, i.e., curl resistance, coefficient of static friction, blocking resistance, multi-feeding resistance, haze value, resistance to adhesion of residual substance to head, resistance to surface roughing of recorded portion, glossiness and blurring resistance.

Limitation 3 finds support in the specification on page 9, line 33, to page 10, line 2.

Amended claim 1 is the same as claim 5 rewritten in independent form with the additional limitations described above. The amendments to claim 1 do not amount to new matter and are believed to place claim 1 in condition for allowance.

Claim 3 has been amended to recite that the (meth)acrylamide-based resin binder is a core-shell-structured latex. This amendment is based on the description on page 8, lines 19 to 23, of the specification.

Claim 4 has been amended to recite that the (meth)acrylamide-based resin binder has a glass transition temperature of 200 to 230°C. This amendment is supported by the description on page 8, lines 11 to 14, of the specification.

Claim 5 has been amended to recite that the ionomeric urethane-based resin in the backside layer is contained in an amount of 5 to 20 mass % of all the binders. This amendment is supported by the description on page 9, line 33, to page 10, line 2, of the specification.

Claims 6 and 9 have been canceled.

The dependencies of claims 7, 10 and 11 have been amended for consistency with the cancellation of claims 6 and 9.

Claim 17 has been amended to recite a dependency on claim 1.

The amendments to the claims are believed to place the application in condition for allowance. A notice of allowability is believed to be in order and is respectfully solicited.

The foregoing is believed to be a complete and proper response to the Office Action dated May 17, 2007. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to Deposit Account No. 111833.

PATENT APPLN. NO. 10/526,779
RESPONSE UNDER 37 C.F.R. §1.111

**PATENT
NON-FINAL**

In the event any additional fees are required, please also
charge our Deposit Account No. 111833.

Respectfully submitted,

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